

# COLUMBINE LOGGING

Scale: 5" / 100'  
Measured Depth Log

Well Name MERRITT 6-66-9-0560BH

Location NWNE SEC 9, T6N, 66W

State COLORADO

Country USA

API Number 5-123-37722

Region DJ BASIN

Spud Date 8/20/2013

Surface Coordinates 260' FNL x 2155' FEL

Bottom Hole Coordinates 500' FSL x 2510' FEL

County WELD

Rig Number NABORS M22

AFE # 18460D

Field WATTENBERG

Drilling Completed 8/30/2013

Ground Elevation 4822'

K.B. Elevation 4844'

Logged Interval 4000' To 11604'

Total Depth 11604'

Formation SHANNON - NIOBRARA

Type of Drilling Fluid LSND - WATER POLY MUD

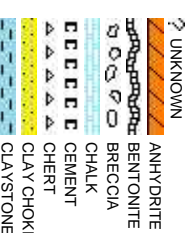
Company Bill Barrett Corp

Address 1099 18th St., S  
Denver, CO 80202

Name JOHN ROESIN

Company BILL BARRETT

Address 1099 18th Street  
Denver, CO 80202



Operator

ite. 2300  
202

Geologist

K  
CORPORATION

it, Suite 2300  
202

Rock Types

AL	CONGLOMERATE	METAMORPHIC
g	DOLomite	NO SAMPLE
g	GRANITE	SALT
g	GYPSUM	SANDSTONE
g	IGNEOUS	SALT-PEPPER SANC
g	SIDERITE or LIMONITE	SHALE
g	LIMESTONE	SHALE COLORED
g	MARLSTONE	SHALE GRAY
g		SHALY SANDSTONE
g		SHALY SILTSTONE
g		SILTY SHALE
g		SILTSTONE
g		TILL
g		TUFF
g		WELDED TUFF

Accessories

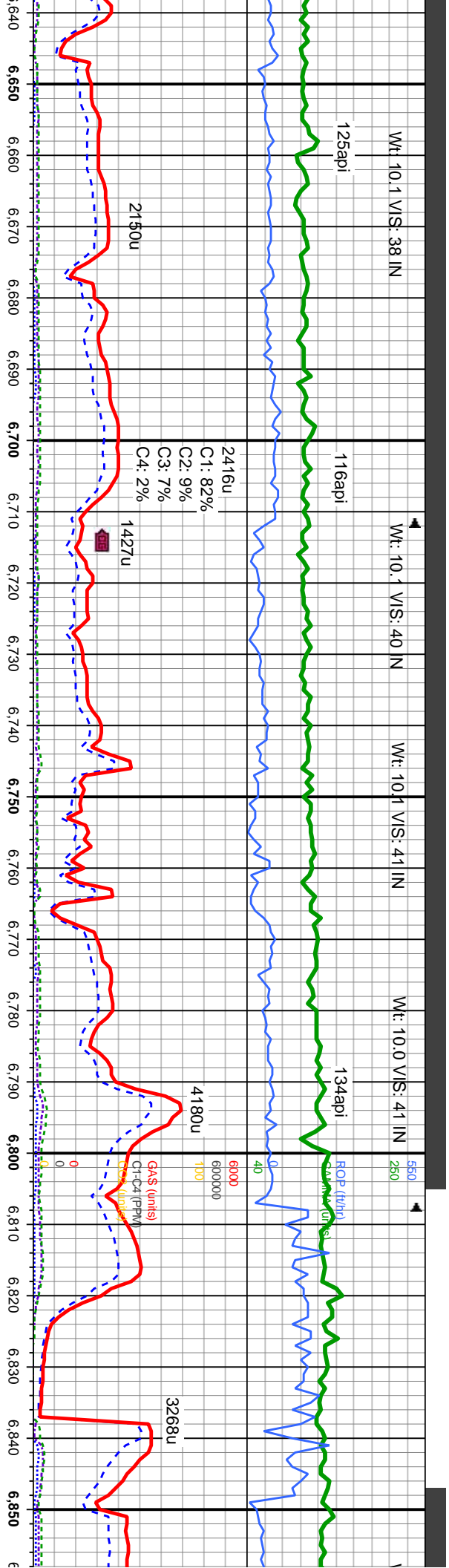
<b>Fossils</b>	F FOSSIL	ARGILLACEOUS	GLAUCONITE	TUFFACEOUS
GASTROPOD	ARGILLITE GRAIN	GYPSIFEROUS		
ALGAE	OOLITE	B BENTONITE	HEAVY MINERAL	
AMPHIROA	OSTRACOD	BITUMENOUS SUBSTANCE	INOCERAMUS	ANHYDRITE STRINGER
BELEMITE	PELECYPOD	BRECCIA FRAGMENTS	KAOLIN	BENTONITE STRINGER
BIOCLASTIC	PELLET	CALCAREOUS	MARLSTONE	COAL STRINGER
BRACHIOPOD	PISOLITE	CARBONACEOUS FLAKES	MINERAL CRYSTALS	DOLomite STRINGER
BRYOZOA	PLANT REMAINS	CHTDK	NOODULES	GYPSUM STRINGER
CEPHALOPOD	PLANT SPORES	CHTLT	PHOSPHATE PELLET:	LIMESTONE STRINGER
CORAL	SCAPHOPOD	COAL - THIN BEDS	PYRITE	MARLSTONE (CALC) STRG
CRINOID	STROMATOPOROID	DOLOMITIC	SALT CAST	MARLSTONE (DOL) STRG
ECHINOID		FELDSPAR	SANDY	SANDSTONE STRINGER
FISH				SHALE STRINGER
FORAMINIFERA	ANHYDRITIC	FERRUGINOUS	SILICEOUS	SILTSTONE STRINGER
			SILTY	

Other Symbols

<b>Oil Show</b>	MOLDIC	FAULT	WIRELINE TESTED - LEFT	E EARTHY
ORGANIC	P PINPOINT	FORMATION TOP	WIRELINE TESTED - RT	FX FINELYXLN
DEAD	VUGGY	GAS SHOW		ES GRAINSTONE
EVEN		MINDEPTH MN DEPTH		L LITHOGRAPHIC
QUESTIONABLE				MX MICROXLN
SPOTTED STAINING				MS MUDSTONE
<b>Engineering</b>	BIT	NORMAL FAULT	REVERSE FAULT	PS PACKSTONE
E EARTHY	CONNECTION (LEFT)	OIL SHOW	SIDEWALL CORE (LEFT)	WS WACKSTONE
FENESTRAL	CONNECTION (RIGHT)	OVERTURNED STRATA	SIDEWALL CORE (RIGHT)	
	CONNECTION GAS	REVERSE FAULT		
F FRACTURE	CORE - LOST	SUBANG		
INTERCRYSTALLINE	CORE - RECOVERED	ANGULAR		
INTEROOLITIC	DST INTERVAL	ROUNDED		
		SUBAND		
		TEXTURES		
		SLIDE		
		SURVEY		
		TRIP GAS		
		BOUNDSTONE		
		CHALKY		
		CRYPTOXLN		
		MODERATE		
		POOR		
		WELL		







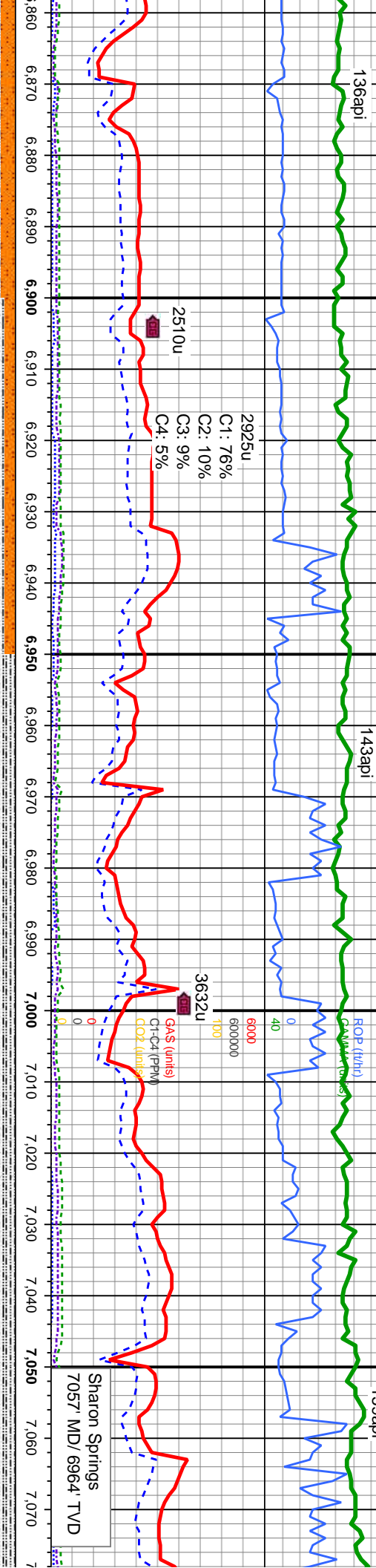
MD: 6,666 TVD: 6,645.36 Inclination: 18.2 ° Azimuth: 166.8 ° VS: -167.89	MD: 6,697 TVD: 6,674.53 Inclination: 21.5 ° Azimuth: 175.3 ° VS: -157.71	MD: 6,729 TVD: 6,703.96 Inclination: 24.6 ° Azimuth: 179.1 ° VS: -145.28	MD: 6,760 TVD: 6,732.03 Inclination: 25.6 ° Azimuth: 179.3 ° VS: -132.17	MD: 6,792 TVD: 6,760.48 Inclination: 28.9 ° Azimuth: 176.5 ° VS: -117.62	MD: 6,824 TVD: 6,788.41 Inclination: 29.5 ° Azimuth: 175.9 ° VS: -102.15	MD: 6,850 TVD: 6,814.41 Inclination: 30.5 ° Azimuth: 175.9 ° VS: -86.0
SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh, SS: cl-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srl, con, non calc, shy ip, SHYSS: lt gy- m gy, fri, f gr, sb rd- rd, mod - w srl, arg	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh	SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blkly-sb plty, gt-rthy, silty, grdg - SH, str dism pyr, SLST: lt gy-dk gy, firm-hd, sb blkly - plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh





Wt: 10.05 V/S: 40 IN

Wt: 10.10 V/S: 40 IN

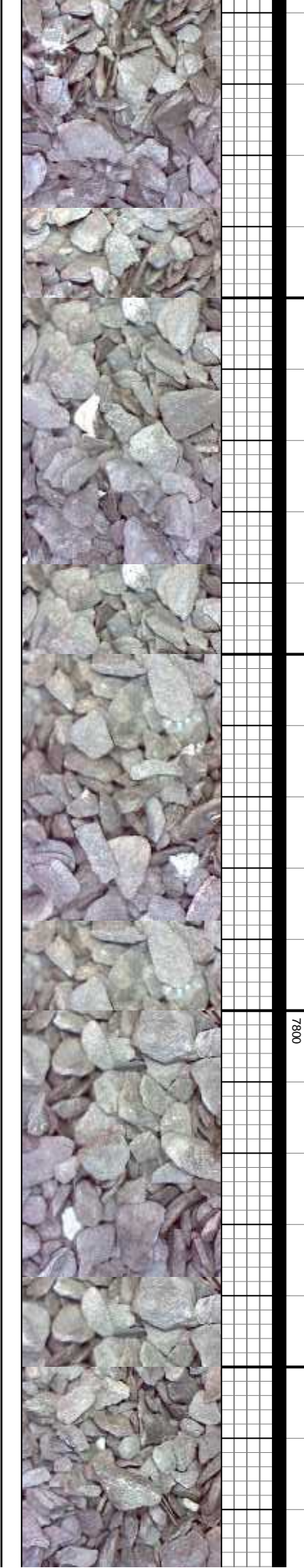


MD: 6,887' TVD: 6,841.71' Inclination: 36.7° Azimuth: 174.4° VS: -69.06'	MD: 6,919' TVD: 6,866.94' Inclination: 39.9° Azimuth: 175.8° VS: -49.62'	MD: 6,951' TVD: 6,891.07' Inclination: 42.2° Azimuth: 176.8° VS: -28.8'	MD: 6,982' TVD: 6,913.54' Inclination: 44.9° Azimuth: 178.2° VS: -7.59'	MD: 7,015' TVD: 6,936.39' Inclination: 47.4° Azimuth: 178.2° VS: 16.08'	MD: 7,047' TVD: 6,957.53' Inclination: 49.9° Azimuth: 177.7° VS: 39.97'	MD: 7,070' TVD: 6,978.66' Inclination: 52.4° Azimuth: 177.7° VS: 63.8'
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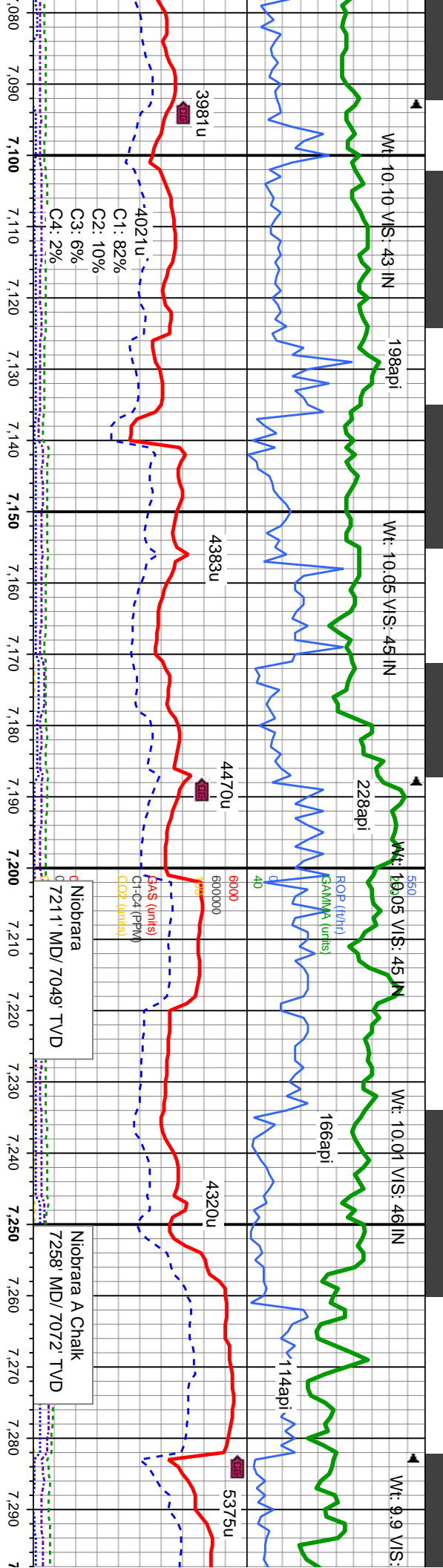
SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blk-y-sb pty, gt-rthy, silty, grdg - SH, str  
dism pyr, SLST: lt gy-dk gy, firm-hd, sb blk-y - pty, gt-rthy, occ sd, non calc, qtz gr,  
occ cnt, arg, grdg to sh,occ bent, occ gold mnrl flr, mod fast dlse, sl stmg,  
mod bri bl wh mky cut, N Stn or Od

SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blk-y-sb pty, gt-rthy, silty, grdg - SH, str  
dism pyr, SLST: lt gy-dk gy, firm-hd, sb blk-y - pty, gt-rthy, occ sd, non calc, qtz gr,  
occ cnt, arg, grdg to sh,occ bent, occ gold mnrl flr, mod fast dlse, sl stmg,  
mod bri bl wh mky cut, N Stn or Od

SLTYSH: m gy-m gy  
dism pyr, SLST: lt g  
occ cnt, arg, grdg to  
mod bri bl wh mky c

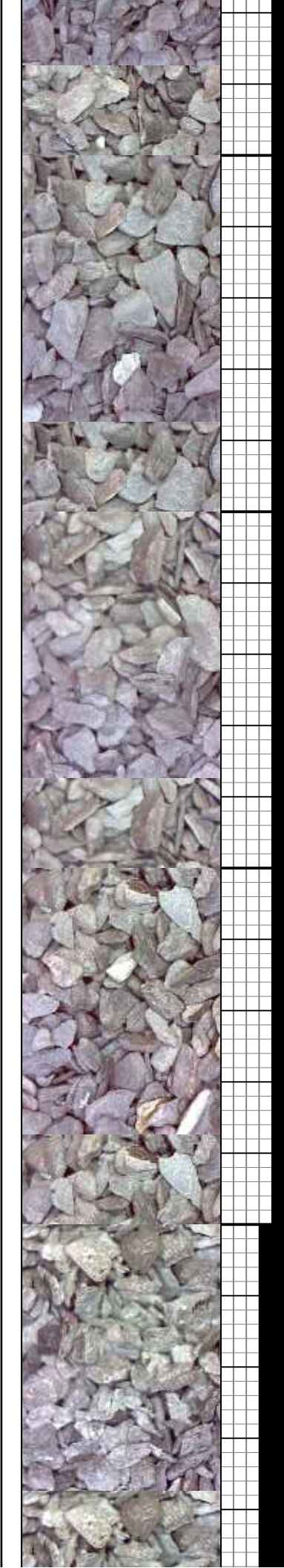






MD: 7,110' TVD: 6,996.07' Inclination: 55.1° Azimuth: 178.4° VS: 89.45'	MD: 7,142' TVD: 7,013.94' Inclination: 57° Azimuth: 179.9° VS: 115.9'	MD: 7,174' TVD: 7,030.85' Inclination: 59.2° Azimuth: 181.6° VS: 143.02'	MD: 7,205' TVD: 7,046.52' Inclination: 60.1° Azimuth: 182.3° VS: 169.75'	MD: 7,237' TVD: 7,062.06' Inclination: 61.8° Azimuth: 182° VS: 197.71'	MD: 7,268' TVD: 7,076.2' Inclination: 63.9° Azimuth: 181.3° VS: 225.26'
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o sh, occ bent, occ gold mnrl flr, mod fast difse, sl stimg, cut, N Sin or Od	100%-85% SLTY SH: lt gy to dk gy, sme stri, sb blk - sb pty, sft - mod firm, slty rthy tex, scat bent, dissm pyr, abnt bent, abnt gold mnrl flr 0%-10% CHK: lt-med gy, sme br-red, lam, mot, vsft-sft, sbpty-blky, v calc, crpxl, inbnd w/mrl, scat bent 0%-5% MARL: lt-dk gy, stri, sft-v sft, sbpty-pty, fri- brit, sil, vf grn, rr vf dissm pyr; v bri bl mod fast mky-stimg cut, sl od, frt yel bl flr res, v frt tan vis light ring	CHK: lt-med gy, sme br, lam, mot, vsft-sft, sbpty-blky, v calc, crpxl, inbnd w/ mrl, scat bent MARL: lt-dk gy, stri, sft-v sft, sbpty-pty, fri- brit, sil, vf grn, rr vf dissm pyr; v bri bl mod fast mky-stimg cut, sl od, frt yel bl flr res, v frt tan vis light ring
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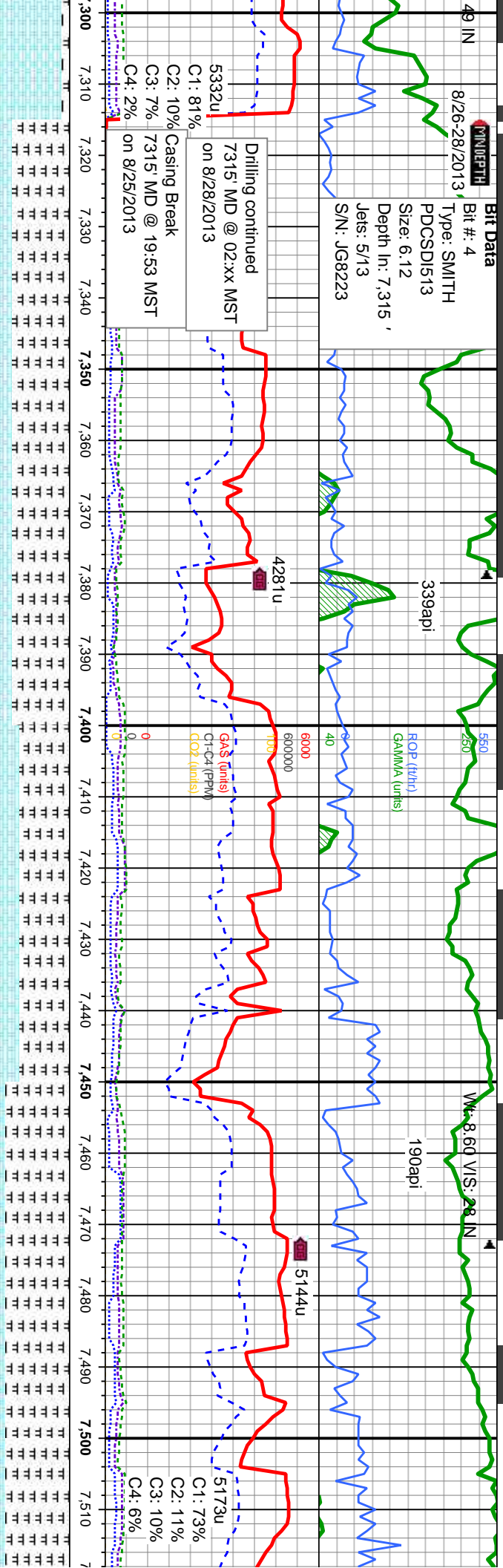


Bit Data

Bit #: 4  
Type: SMITH  
PDCSD1513  
Size: 6.12  
Depth In: 7.315 '  
Jets: 5/13  
S/N: JG8223

8/26-28/2013

Drilling continued  
7315 MD @ 02:xx MST  
on 8/28/2013  
C1: 81%  
C2: 10% Casing Break  
C3: 7% 7315 MD @ 19:53 MST  
C4: 2% on 8/25/2013



MD: 7.331  
TVD: 7,100.98'  
Inclination: 70.3 °  
Azimuth: 180.8 °  
VS: 283.07'

MD: 7.362  
TVD: 7,110.17'  
Inclination: 75.2 °  
Azimuth: 181.9 °  
VS: 312.63'

MD: 7.394  
TVD: 7,117.53'  
Inclination: 78.2 °  
Azimuth: 181.3 °  
VS: 331.01'

MD: 7.425  
TVD: 7,122.86'  
Inclination: 82 °  
Azimuth: 181.4 °  
VS: 361.5'

MD: 7.457  
TVD: 7,126.46'  
Inclination: 85.1 °  
Azimuth: 180.9 °  
VS: 393.26'

MD: 7.489  
TVD: 7,128.58'  
Inclination: 87.3 °  
Azimuth: 180 °  
VS: 425.12'

MD: 7.5  
TVD: 7,130.00'  
Inclination: 88.0 °  
Azimuth: 180 °  
VS: 456.00'

CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent  
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent  
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring

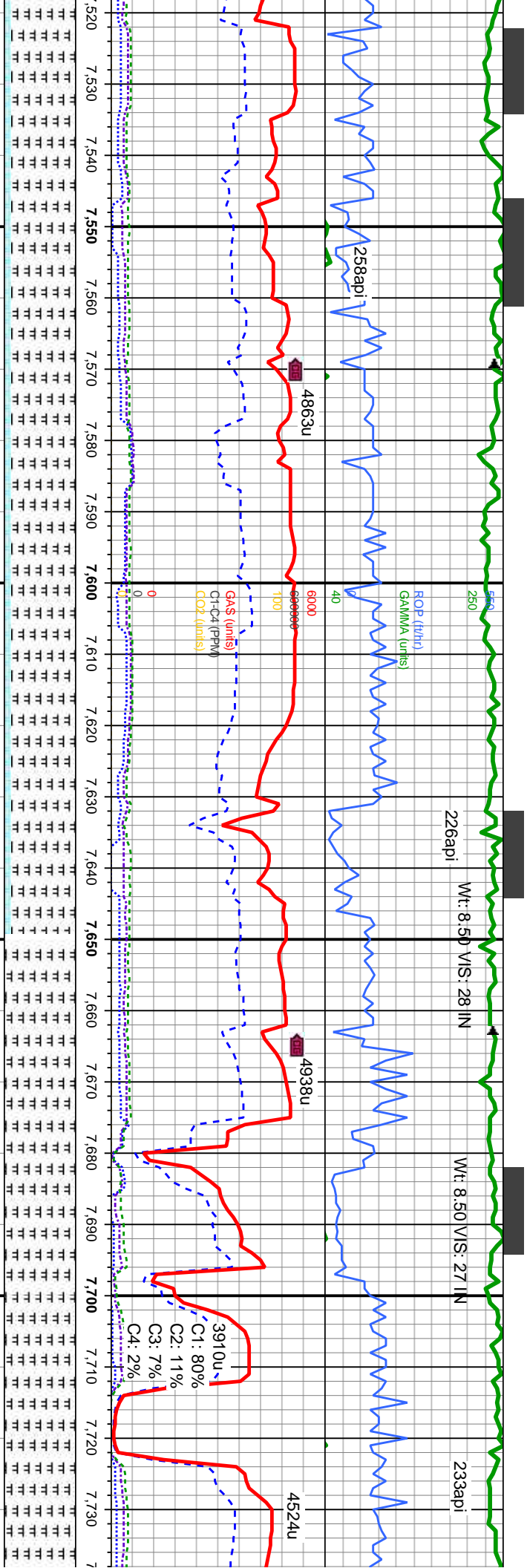
CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent  
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent  
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent  
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring



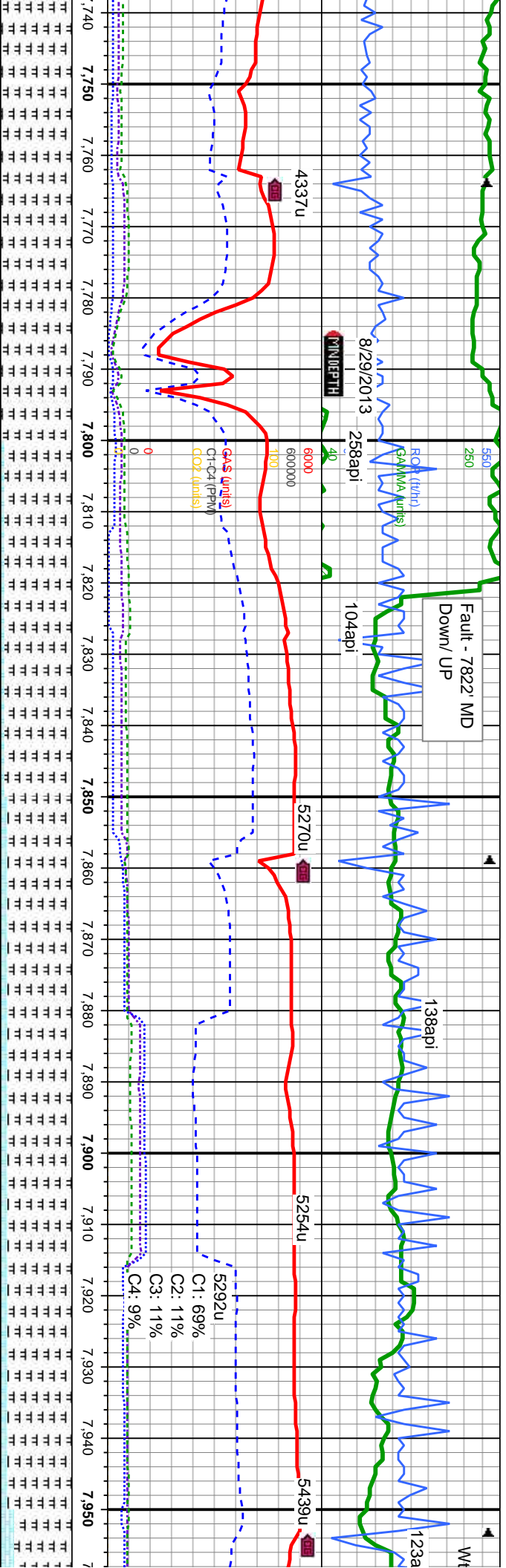




MD: 7.552 TVD: 7,129.79 Inclination: 91.4 ° Azimuth: 180.3 ° VS: 487.94	MD: 7.584 TVD: 7,128.68 Inclination: 92.6 ° Azimuth: 180.2 ° VS: 519.85	MD: 7.615 TVD: 7,127.22 Inclination: 92.8 ° Azimuth: 179.6 ° VS: 550.74	MD: 7.711 TVD: 7,124.7 Inclination: 90.2 ° Azimuth: 179.6 ° VS: 659.15
stri, sft-v sft, sbply-ply, fri- vif dism pyr; v bri bl mod fast od, fnt yel bl flr res, v fnt	stri, sft-v sft, sbply-ply, fri- vif dism pyr; v bri bl mod fast od, fnt yel bl flr res, v fnt	stri, sft-v sft, sbply-ply, fri- vif dism pyr; v bri bl mod fast od, fnt yel bl flr res, v fnt	stri, sft-v sft, sbply-ply, fri- vif dism pyr; v bri bl mod fast od, fnt yel bl flr res, v fnt
alg, crpxl, inbtd w/ mrl, scat bent	alg, crpxl, inbtd w/ mrl, scat bent	alg, crpxl, inbtd w/ mrl, scat bent	alg, crpxl, inbtd w/ mrl, scat bent
CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, inbtd w/ mrl, scat	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, inbtd w/ mrl, scat	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, inbtd w/ mrl, scat	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, inbtd w/ mrl, scat
MARL: lt-dk gy, stri, sft-v sft, sbply-ply, fri- brit, sil, vif grn, rr vif dism pyr; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-ply, fri- brit, sil, vif grn, rr vif dism pyr; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-ply, fri- brit, sil, vif grn, rr vif dism pyr; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-ply, fri- brit, sil, vif grn, rr vif dism pyr; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring







MD: 7,774  
TVD: 7,124.37  
Inclination: 90.4 °  
Azimuth: 180 °  
VS: 721.97

MD: 7,806  
TVD: 7,124.15  
Inclination: 90.4 °  
Azimuth: 179.9 °  
VS: 763.89

MD: 7,900  
TVD: 7,123.25  
Inclination: 90.7 °  
Azimuth: 179.3 °  
VS: 847.6

Y-pty, fri-  
brit, sil, vif grn, rr vf dism pyr, tr chk, v bri bl  
mod fast mky-stmg cut, sl od, frnt yel bl  
flor res, v frnt tan vis light ring

MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-  
brit, sil, vif grn, rr vf dism pyr, tr chk, v bri bl  
mod fast mky-stmg cut, sl od, frnt yel bl  
flor res, v frnt tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft,  
sbply-biky, v calc, cpxl, inbnd w/ mrl, scat  
bent

MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-  
brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast  
mky-stmg cut, sl od, frnt yel bl flor res, v frnt  
tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft,  
sbply-biky, v calc, cpxl, inbnd w/ mrl, scat  
bent

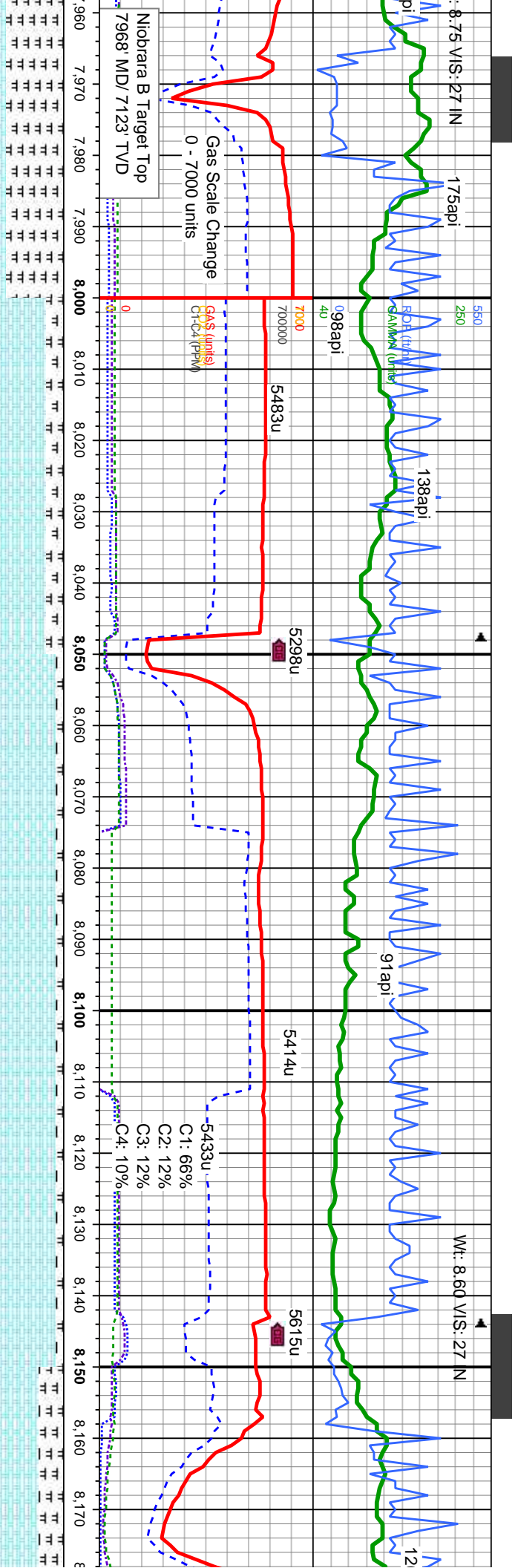
MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-  
brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast  
mky-stmg cut, sl od, frnt yel bl flor res, v frnt  
tan vis light ring

CHK: lt-med gy, sme brn, lam, mot, vsft-sft,  
sbply-biky, v calc, cpxl, inbnd w/ mrl, scat  
bent

MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-  
brit, sil, vif grn, rr vf dism pyr, v bri bl mod fast  
mky-stmg cut, sl od, frnt yel bl flor res, v frnt  
tan vis light ring







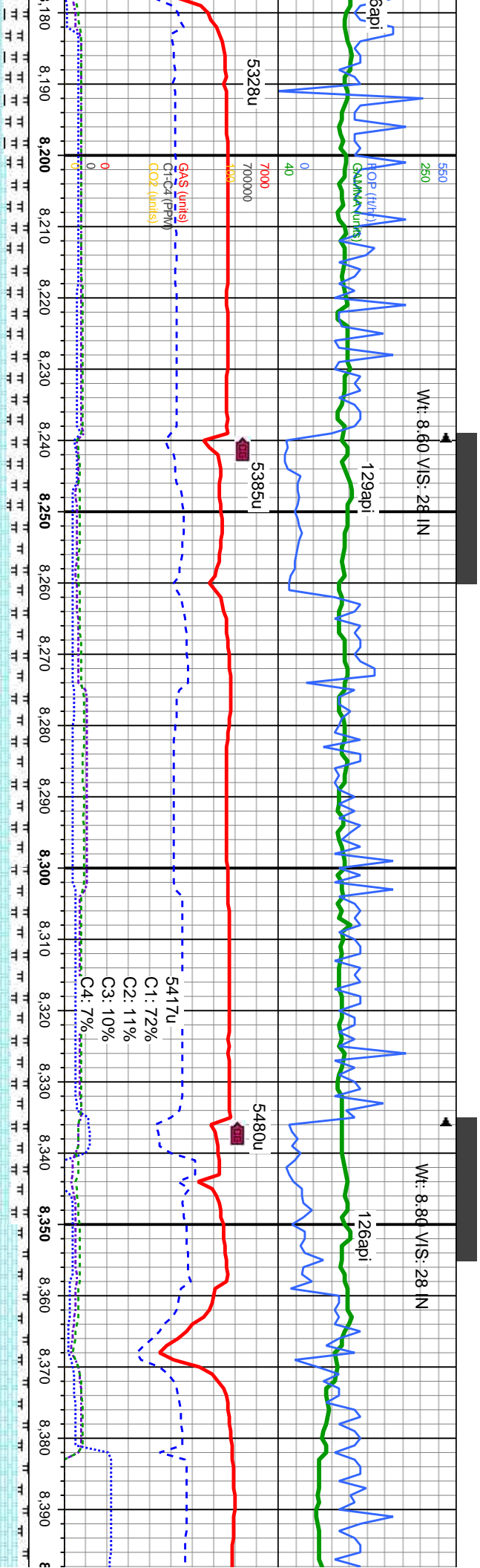
MD: 7,996'  
TVD: 7,122.58'  
Inclination: 90.1 °  
Azimuth: 179.4 °  
VS: 943.27'

MD: 8,091'  
TVD: 7,122'  
Inclination: 90.6 °  
Azimuth: 178.2 °  
VS: 1,037.86'

lt-med gy, sme bm, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, inbd w/ mrl, scat	CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, inbd w/ mrl, scat bent	CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, inbd w/ mrl, scat bent	CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, inbd w/ mrl, scat bent	CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, inbd w/ mrl, scat bent
lt-dk gy, strl, sft-v sft, sbply-plty, frl-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, frnt yel bl flr res, v frnt tan vis light ring	MARL: lt-dk gy, strl, sft-v sft, sbply-plty, frl-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, frnt yel bl flr res, v frnt tan vis light ring	MARL: lt-dk gy, strl, sft-v sft, sbply-plty, frl-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, frnt yel bl flr res, v frnt tan vis light ring	MARL: lt-dk gy, strl, sft-v sft, sbply-plty, frl-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, frnt yel bl flr res, v frnt tan vis light ring	MARL: lt-dk gy, strl, sft-v sft, sbply-plty, frl-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, frnt yel bl flr res, v frnt tan vis light ring





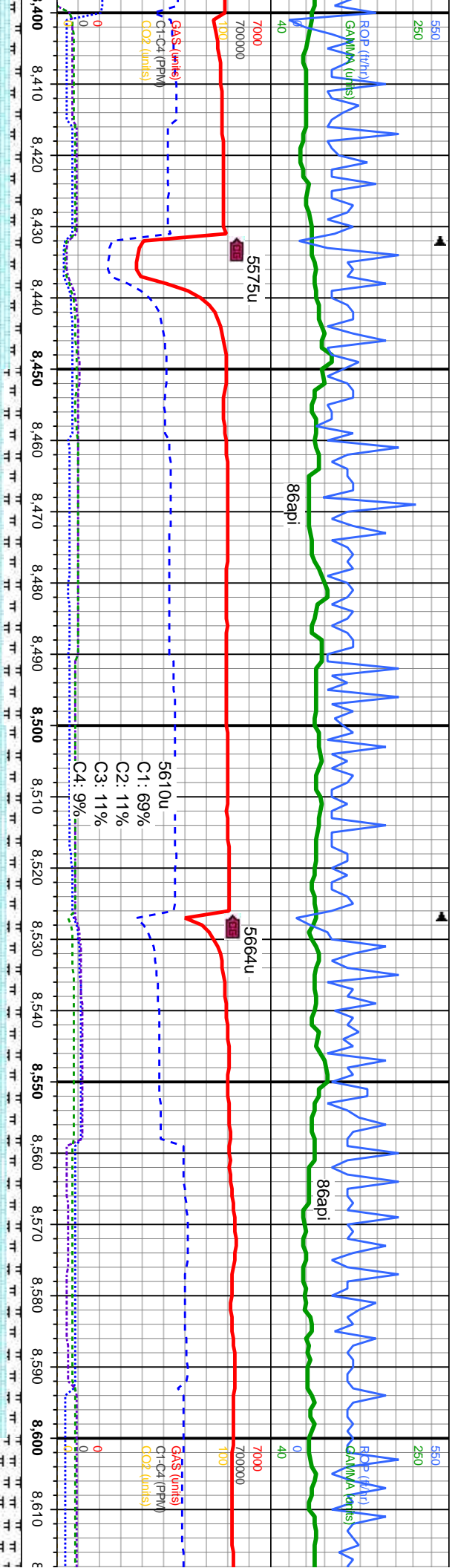


MD: 8,187 TV/D: 7,120.74 Inclination: 90.9 ° Azimuth: 179.3 ° VS: 1,133.44'	6440	MD: 8,283 TV/D: 7,119.23 Inclination: 90.9 ° Azimuth: 181.9 ° VS: 1,229.24'	MD: 8,378 TV/D: 7,119.15 Inclination: 89.2 ° Azimuth: 183.4 ° VS: 1,324.21'
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lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-bkly, v calc, crptxl, intbd w/ mrl, scat bent
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring





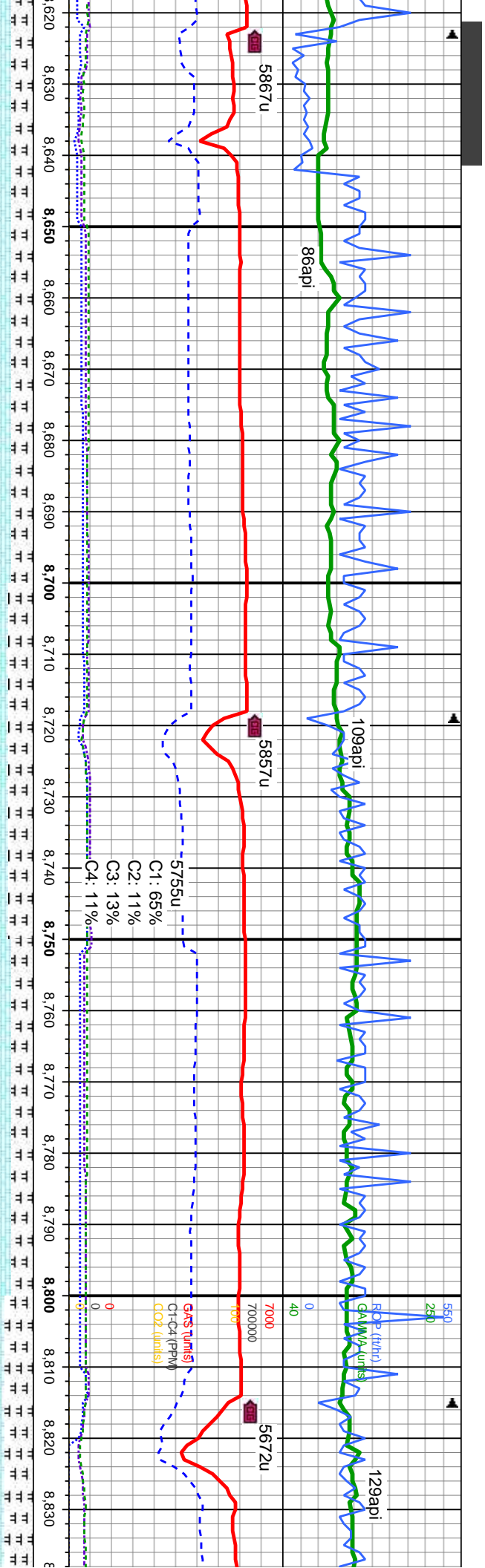


6440	MD: 8,473 TVD: 7,119.98 Inclination: 89.8 ° Azimuth: 182.6 ° VS: 1,419.19 '	6440
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CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, intbd w/ mrl, scat bent
MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring







MD: 8,663'  
TVD: 7,119.23'  
Inclination: 89.1°  
Azimuth: 181.7°  
VS: 1,609.06'

MD: 8,758'  
TVD: 7,120.39'  
Inclination: 89.5°  
Azimuth: 181.6°  
VS: 1,703.96'

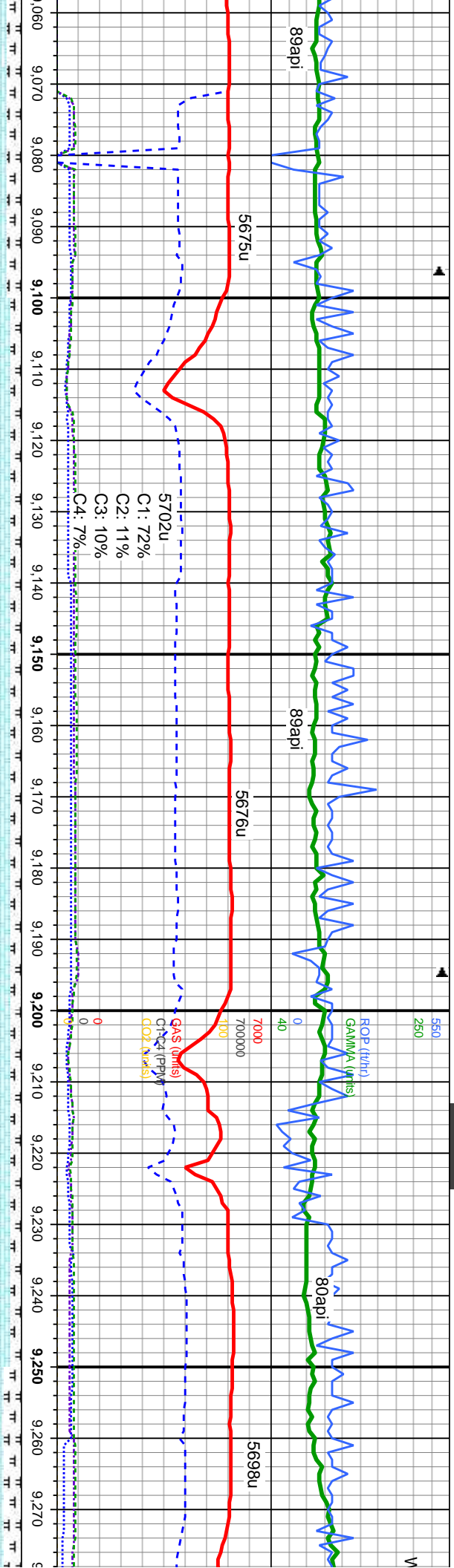
stiri, sft-v sft, sbply-pty, fri- v'f dism pyr, tr sec cal; v bri sting cut, sl od, fnt yel bl flor light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, intbd w/ mrl, scat bent	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- bri, sil, v'f grn, rr v'f dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring
stiri, sft-v sft, sbply-pty, fri- v'f dism pyr, tr sec cal; v bri sting cut, sl od, fnt yel bl flor light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, intbd w/ mrl, scat bent	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- bri, sil, v'f grn, rr v'f dism pyr, tr sec cal, tr inoc; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring
stiri, sft-v sft, sbply-pty, fri- v'f dism pyr, tr sec cal; v bri sting cut, sl od, fnt yel bl flor light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, intbd w/ mrl, scat bent	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- bri, sil, v'f grn, rr v'f dism pyr, tr sec cal, tr inoc; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring
stiri, sft-v sft, sbply-pty, fri- v'f dism pyr, tr sec cal; v bri sting cut, sl od, fnt yel bl flor light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, intbd w/ mrl, scat bent	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- bri, sil, v'f grn, rr v'f dism pyr, tr sec cal, tr inoc; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring









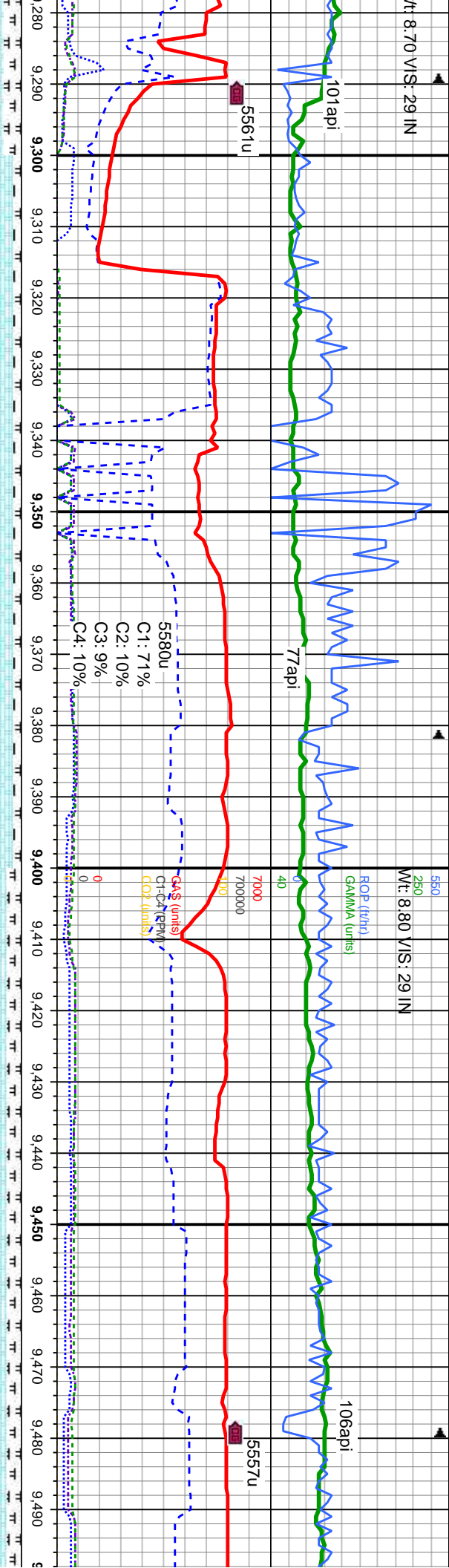


MD: 9,140 ' TVD: 7,116.72' Inclination: 90.9 ° Azimuth: 180.4 ° VS: 2,085.35 '		MD: 9,236 ' TVD: 7,114.46' Inclination: 91.8 ° Azimuth: 180.4 ° VS: 2,181.13 '	
6440		7800	

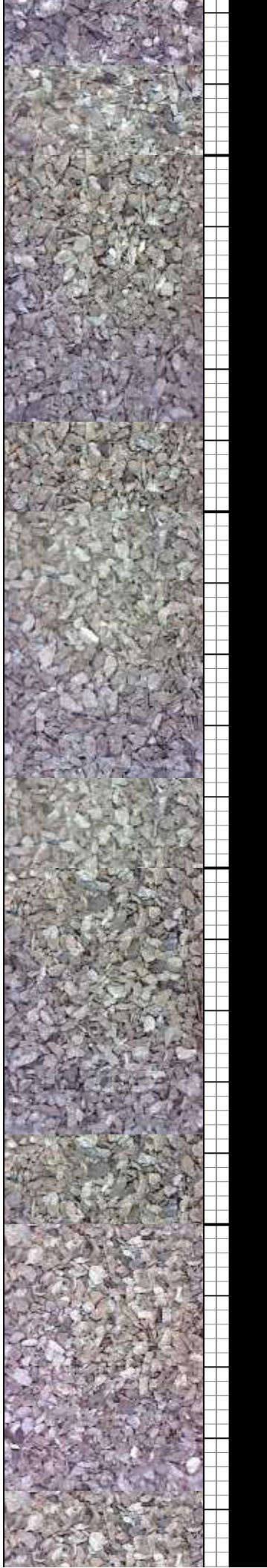
med gy, sme brn, lam, mot, vsft-sft, blk, v calc, crptxl, It-dk gy, stri, sft-v sft, sbply-plty, fri-grn, rr vf dism pyr, tr sec cal, tr-mod inoc, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal, tr-mod inoc, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal, tr-mod inoc, v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal, tr-mod inoc, v bri bl mod fast mky-stmg cut, bl mod fast mky-stmg cut, flor res, v fnt tan vis light ring
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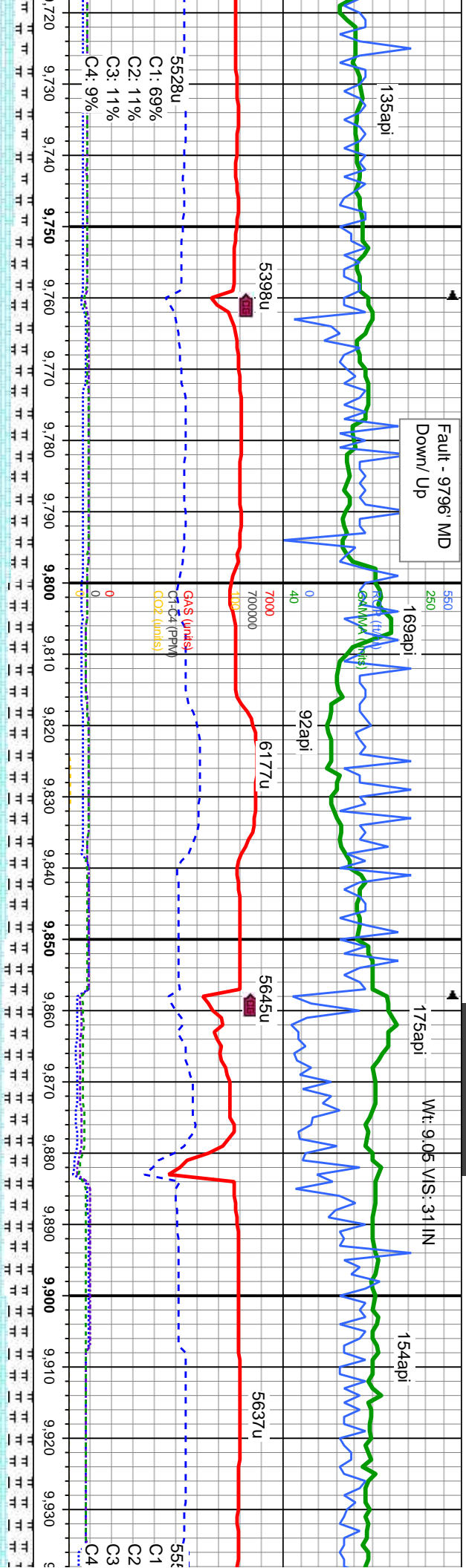
MD: 9,330'		MD: 9,426'	
TVD: 7,112'		TVD: 7,109.9'	
Inclination: 91.2°		Inclination: 91.3°	
Azimuth: 178.1°		Azimuth: 177.4°	
VS: 2,274.76'		VS: 2,370.15'	
CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, MARL: lt-dk gy, strf, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring		CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, MARL: lt-dk gy, strf, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, v tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	
lam, mot, vsft-sft, sft, sbply-plty, fri-pyr, tr sec cal; v bri, sl od, fnt yel bl ring		CHK: lt-med gy, sme bm, lam, mot, vsft-sft, sbply-biky, v calc, crptxl, MARL: lt-dk gy, strf, sft-v sft, sbply-plty, fri-brit, sil, vf grn, rr vf dism pyr, v tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	





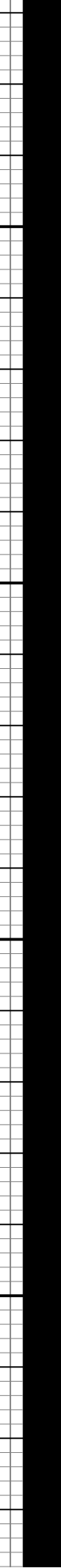






MD: 9,807 TVD: 7,102.76 Inclination: 91.3 ° Azimuth: 179.2 ° VS: 2,749.26 '	MD: 9,902 TVD: 7,101.02 Inclination: 90.8 ° Azimuth: 179.5 ° VS: 2,843.92 '
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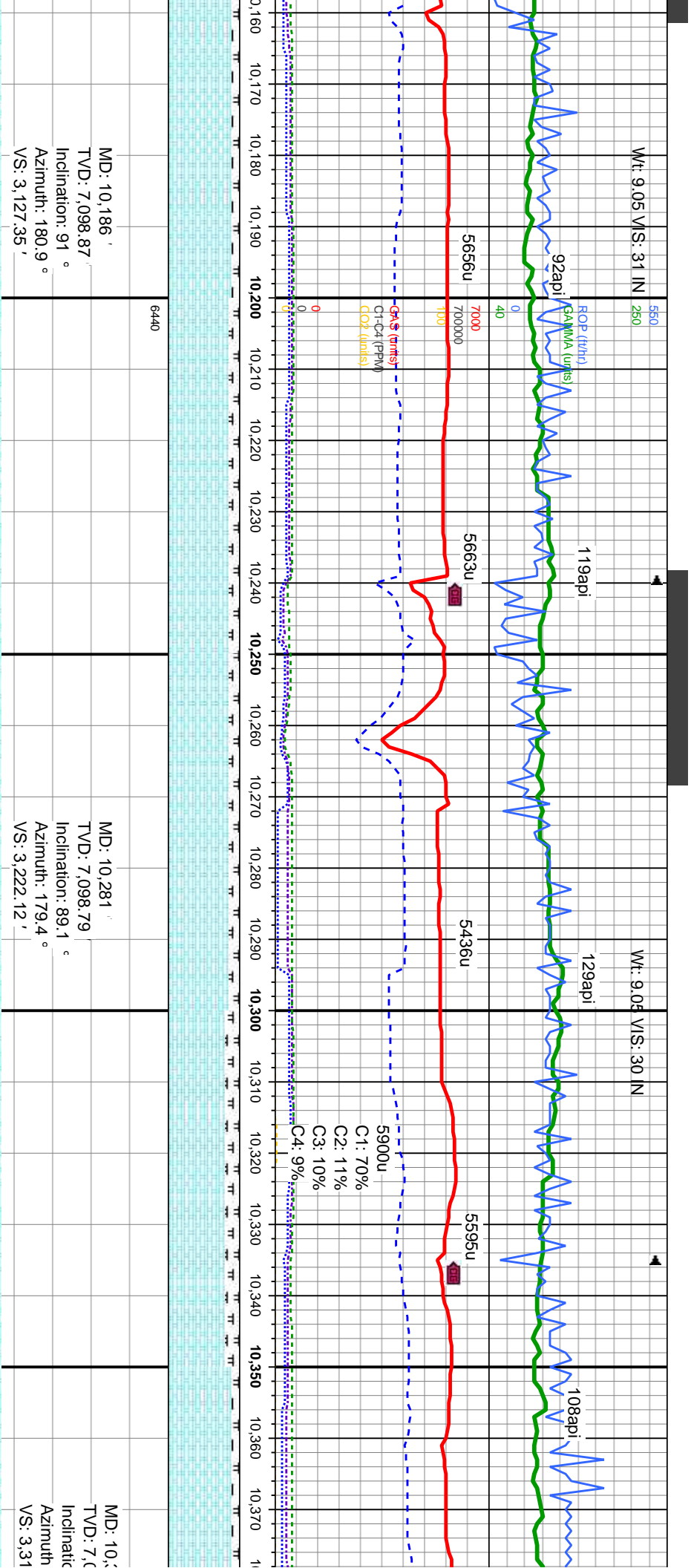
CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flr res, v fnt tan vis light ring
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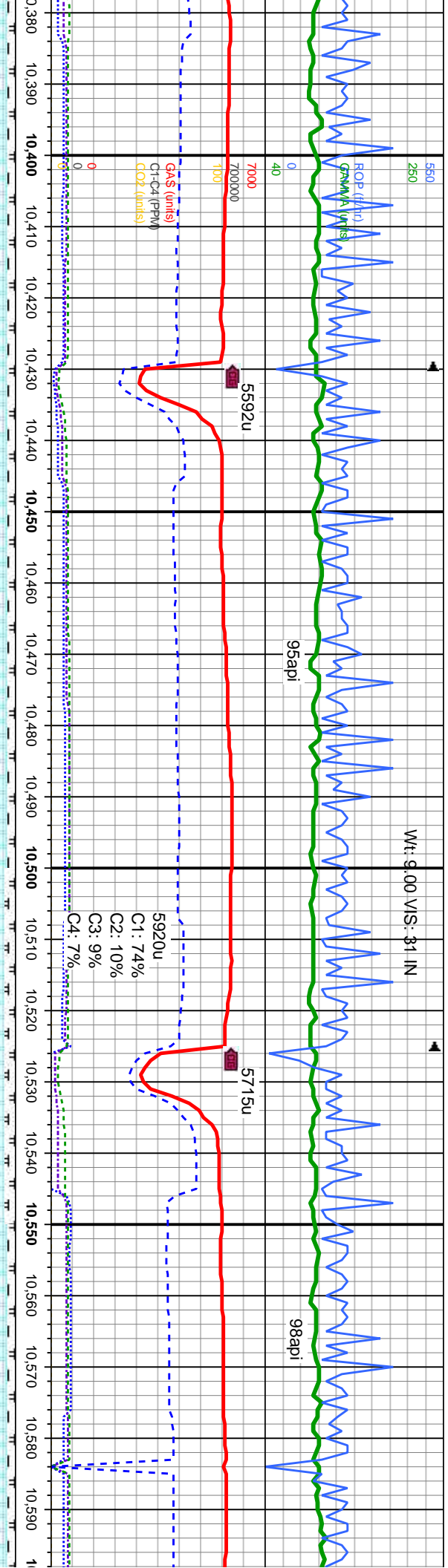




It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl,	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl,	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl,	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl,
It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri	MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri	MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri	MARL: It-dk gy, stri, sft-v sft, sbply-ply, fri-brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri
fast mky-stmg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl
fior res, v fnt tan vis light ring	fior res, v fnt tan vis light ring	fior res, v fnt tan vis light ring	fior res, v fnt tan vis light ring





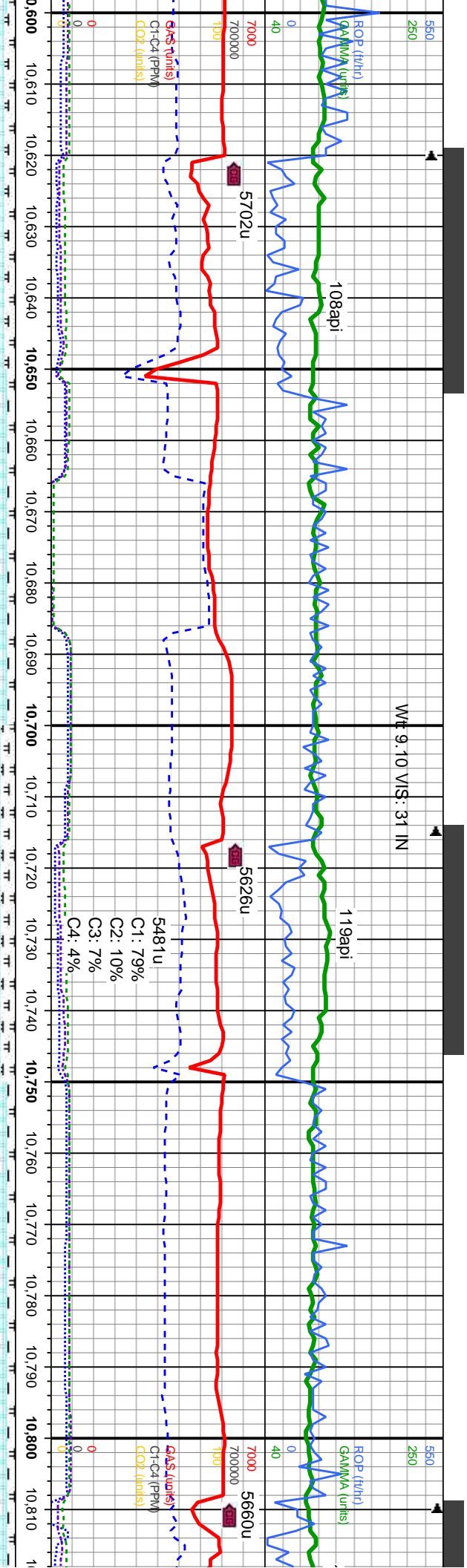


6440	MD: 10,472' TVD: 7,099.79' Inclination: 90.3° Azimuth: 177.8° VS: 3,412.28'	MD: 10,567' TVD: 7,098.55' Inclination: 91.2° Azimuth: 176.7° VS: 3,506.6'
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lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-sting cut, sl od, fnt yel bl flor res, v fnt tan vis light ring
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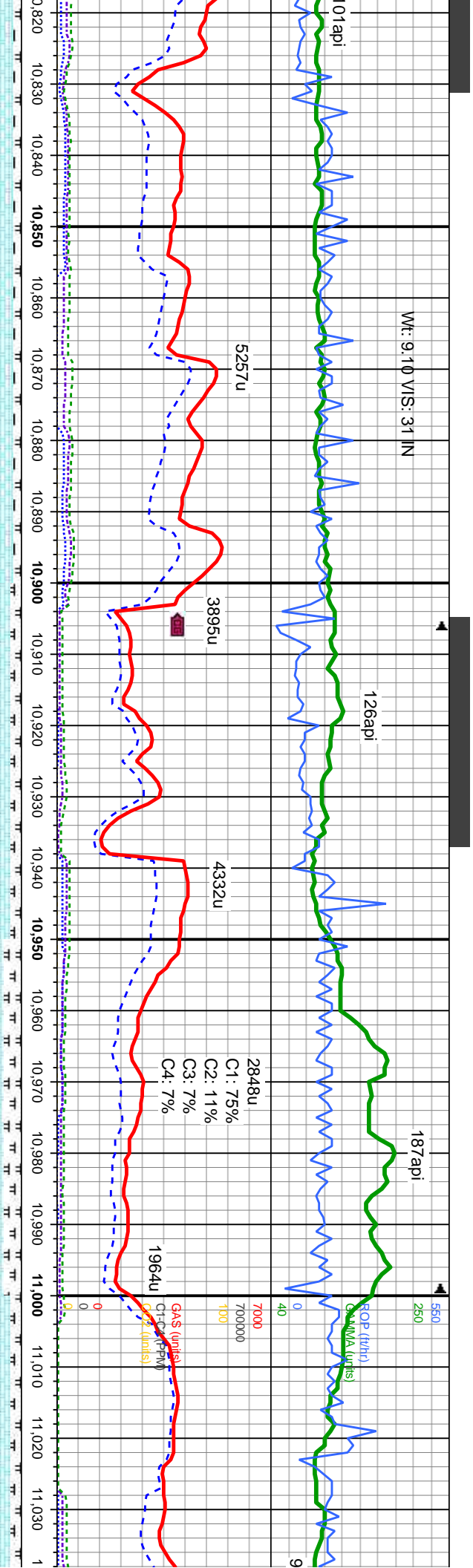


MD: 10.662 TVD: 7,096.9 Inclination: 90.8 ° Azimuth: 175.9 ° VS: 3,600.67	MD: 10.757 TVD: 7,096.07 Inclination: 90.2 ° Azimuth: 178.1 ° VS: 3,694.98
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CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-bit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-bit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plty, fri-bit, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-simg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring
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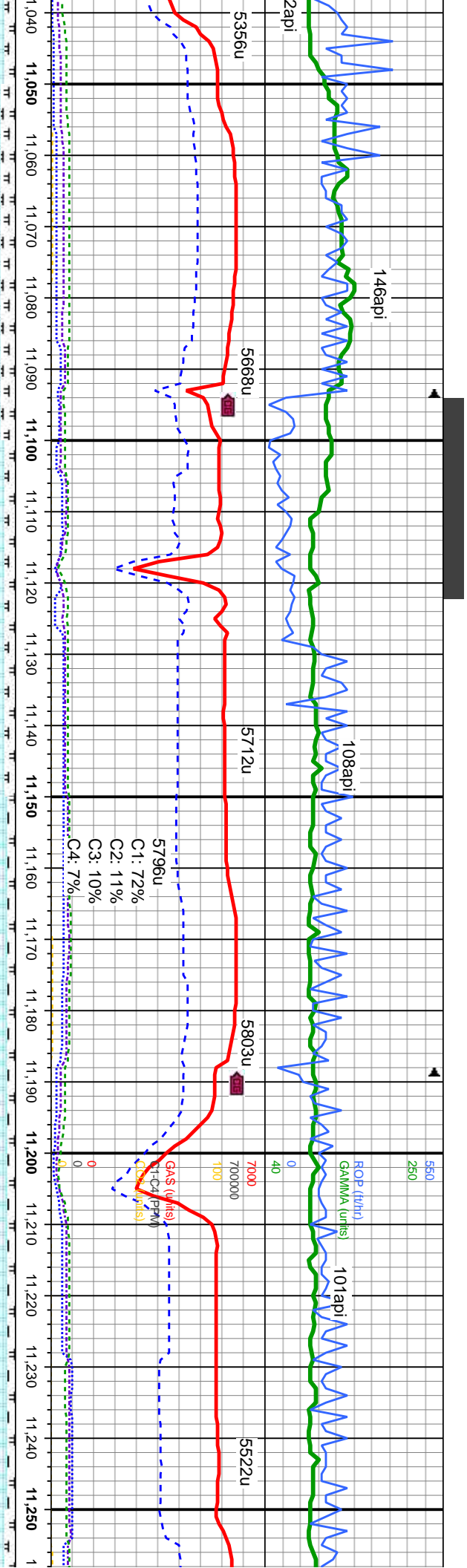
MD: 10,853 '  
TVD: 7,095.06 '  
Inclination: 91 °  
Azimuth: 179.2 °  
VS: 3,790.55 '

MD: 10,947 '  
TVD: 7,095.72 '  
Inclination: 88.2 °  
Azimuth: 177.9 °  
VS: 3,884.1 '

sme brn, lam, mot, vsft-sft, c, crptxl,	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl,	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl,	CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crptxl,
sft-v sft, sbply-pty, fri-vf dism pyr, tr sec cal; v bri	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-brit, sil, vf grn, tr vf dism pyr, tr sec cal; v bri	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-brit, sil, vf grn, tr vf dism pyr, tr sec cal; v bri	MARL: lt-dk gy, stri, sft-v sft, sbply-pty, fri-brit, sil, vf grn, tr vf dism pyr, tr sec cal; v bri
stimg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl	bl mod fast mky-stmg cut, sl od, fnt yel bl
vis light ring	fior res, v fnt tan vis light ring	fior res, v fnt tan vis light ring	fior res, v fnt tan vis light ring





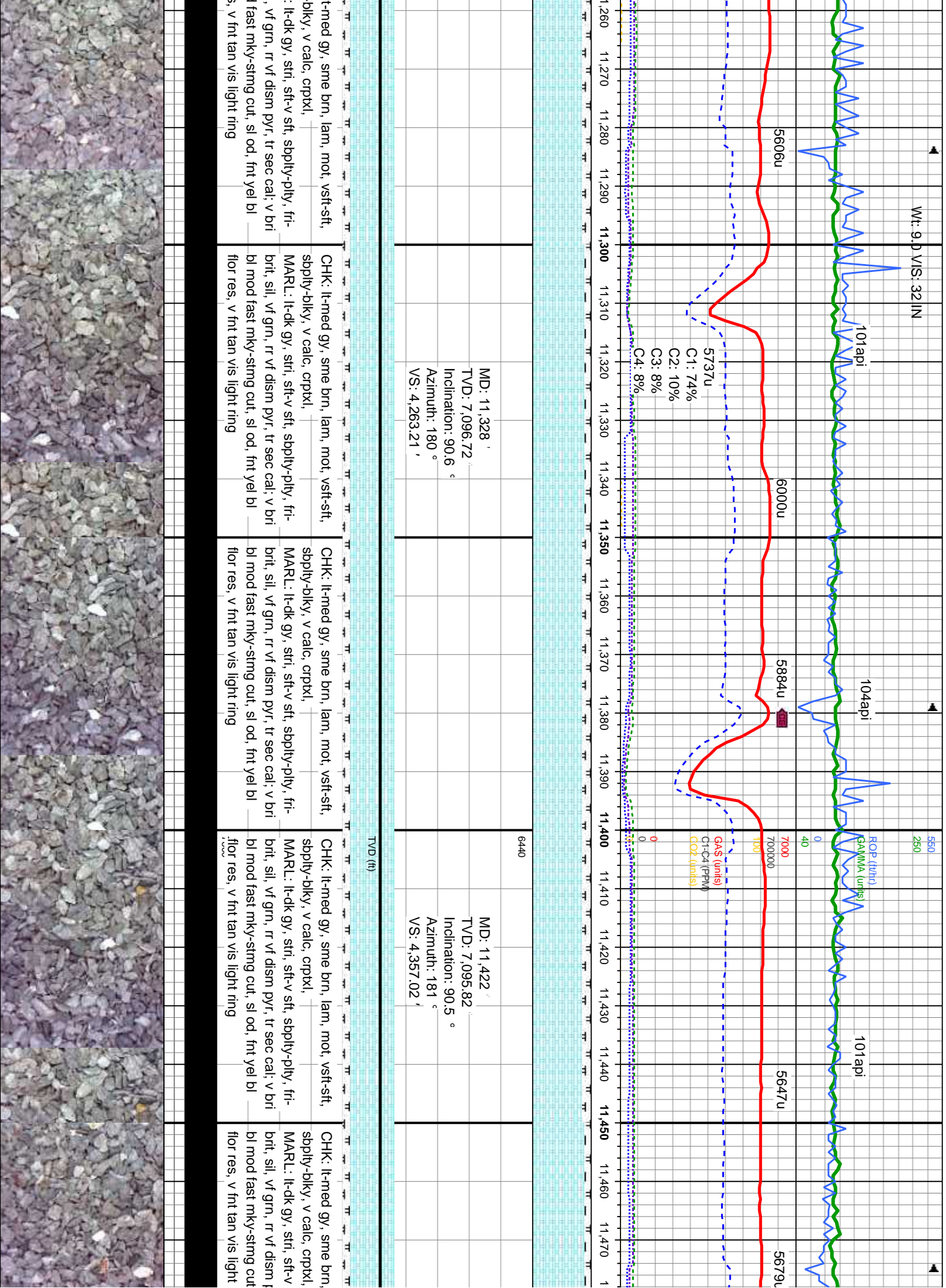


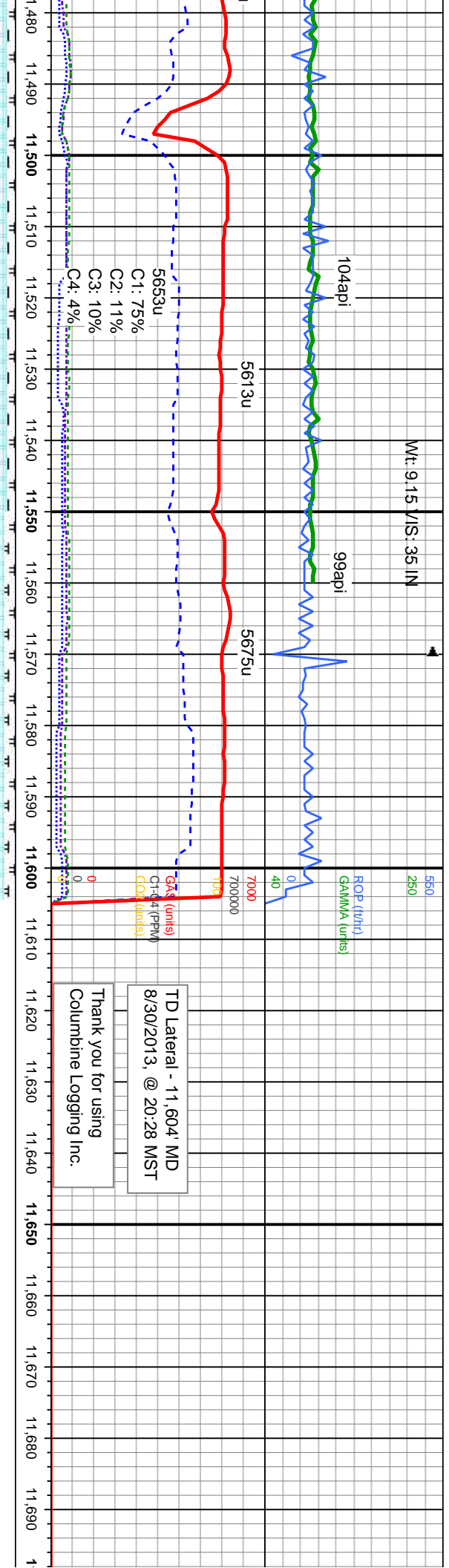
11,042'	MD: 11,138'	6440	MD: 11,232'
7,098.37'	TVD: 7,098.88'		TVD: 7,097.73'
Inclination: 88.6 °	Inclination: 90.8 °		Inclination: 90.6 °
Azimuth: 177.8 °	Azimuth: 178.2 °		Azimuth: 179 °
VS: 3,978.5'	VS: 4,073.95'		VS: 4,167.52'

CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-dlky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plly, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl floor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-dlky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plly, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl floor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-dlky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plly, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl floor res, v fnt tan vis light ring	CHK: It-med gy, sme brn, lam, mot, vsft-sft, sbply-dlky, v calc, crptxl, MARL: It-dk gy, stri, sft-v sft, sbply-plly, fri-brt, sil, vf grn, rr vf dism pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl floor res, v fnt tan vis light ring
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Mt: 9.15 V/S: 35 IN

Projection to Bit

MD: 11,518'  
TVD: 7,094.73'  
Inclination: 90.8 °  
Azimuth: 181.9 °  
VS: 4,452.91'

MD: 11,604'  
TVD: 7,093.76'  
Inclination: 90.5 °  
Azimuth: 182.1 °  
VS: 4,538.85'

lam, mot, vsft-sft,	CHK: It-med gy, sme brn, lam, mot, vsft-sft, ssply-bkly, v calc, crptxl,	CHK: It-med gy, sme brn, lam, mot, vsft-sft, ssply-bkly, v calc, crptxl,
sft, ssply-ply, fri- pyr, tr sec cal; v bri sl od, fnt yel bl ring	MARL: It-dk gy, stri, sft-v sft, ssply-ply, fri- brit, sil, vf grn, rr vf dsm pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring	MARL: It-dk gy, stri, sft-v sft, ssply-ply, fri- brit, sil, vf grn, rr vf dsm pyr, tr sec cal; v bri bl mod fast mky-stmg cut, sl od, fnt yel bl flor res, v fnt tan vis light ring



TD Lateral - 11,604' MD  
8/30/2013, @ 20:28 MST

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